

Climate Summary for Florida – October 2018

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Online at: <http://climatecenter.fsu.edu/products-services/summaries>

Mean temperatures in October were much above normal statewide (Table 1 and Appendix 1). October 2018 was the warmest on record at Tampa and Key West (the second consecutive at both locations), as well as other less major stations, and in the top five warmest on record at several other stations. Several high temperature records were tied or broken across the state (Appendix 2).

Table 1. October average temperatures and departures from normal (°F) for selected cities.

Station	Mean Temperature	Departure from Normal
Pensacola	74.8	+5.2
Tallahassee	74.0	+4.6
Jacksonville	74.2	+3.7
Orlando	78.1	+2.6
Tampa	80.0	+3.9
Miami	81.3	+1.5
Key West	83.6	+3.3

Rainfall totals in October were below normal except in the central and eastern panhandle (Figure 1). Rainfall was somewhat above normal in the central and eastern panhandle owing to Hurricane Michael on the 10th of the month. 24-hour precipitation records were broken for the month (Table 3).

Table 2. October precipitation totals and departures from normal (inches) for selected cities.

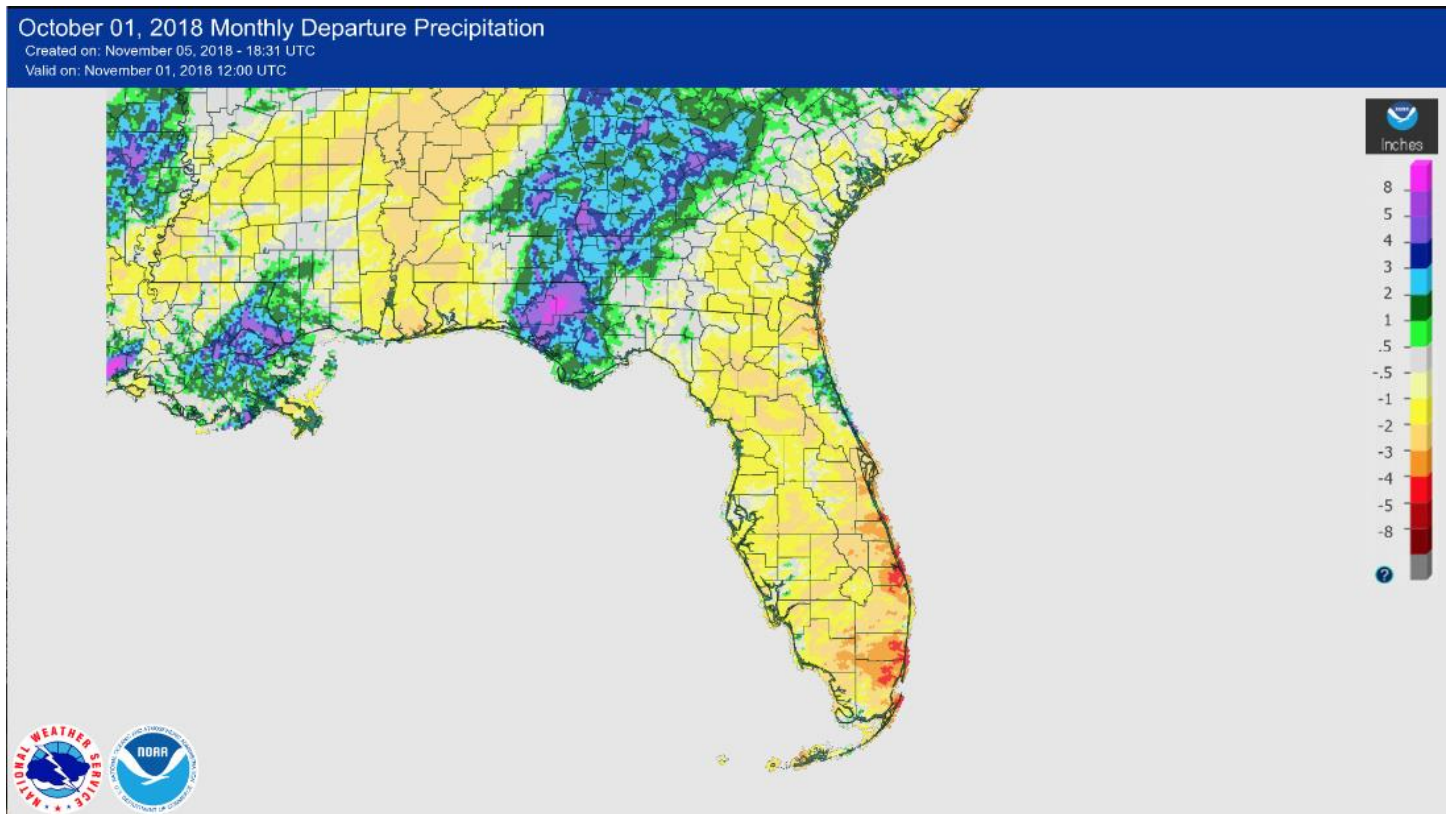
Station	Total Rainfall	Departure from Normal
Pensacola	3.75	-1.49
Tallahassee	3.90	+0.67
Jacksonville	1.30	-2.63
Orlando	2.05	-1.07
Tampa	1.42	-0.84
Miami	1.76	-4.57
Key West	3.19	-1.74

Table 3. Select daily rainfall records (inches) broken during October. (Compiled from NOAA, NWS)



(none to report)

Figure 1. A graphical depiction of the monthly rainfall departure from normal (inches) for October is given in the figure below (courtesy of NOAA, NWS).



ENSO-neutral conditions are present in the Pacific, with El Niño favored to develop.

Based on current data and forecast models, forecasters with the Climate Prediction Center (CPC) continue with an El Niño Watch. ENSO-neutral conditions currently are present, with sea-surface temperatures (SST) above average across the equatorial Pacific Ocean. El Niño development is favored by the end of the climatological boreal autumn (from now through the end of November), and the chance of development is 70-75% during the climatological boreal winter (December-January-February). The CPC seasonal outlook favors above-normal temperatures and above-normal precipitation statewide through November 2018.

Hazardous Weather Events in October.

According to the Local Storm Reports (LSRs) issued by the local National Weather Service (NWS) offices serving Florida, numerous instances of hazardous weather were reported across the state in October 2018. Of special interest was Hurricane Michael, which made landfall on the 10th as a high-end Category 4 storm near Mexico Beach and was the third-strongest storm ever to landfall on the United States in terms of minimum central pressure.

Table 4. Breakdown of storm reports submitted in Florida during the month of October. (Compiled from Iowa State University/Iowa Environmental Mesonet.)

Report Type	Number of Reports
Storm Damage	1 (excluding hurricane)
High Winds	30
Dense Fog	0
Hail	0
Tornadoes/Funnel Clouds/Waterspouts	16
Heavy Rain	24
Fire	0
Flooding	0 (excluding storm surge/coastal)
Lightning	0
Heat	0
Coastal Hazards/Rip Currents	1

Drought-Related Impacts.

At the end of October, according to the U.S. Drought Monitor, abnormally dry conditions were present in a large area from the Space Coast, south along the coast to near Miami and southwest from there, as well as in northeast Florida in the Jacksonville area.

As of 5 November, the Lake Okeechobee water level was at 13.65 ft. above sea level, which is near average for this time of the year.

**U.S. Drought Monitor
Florida**

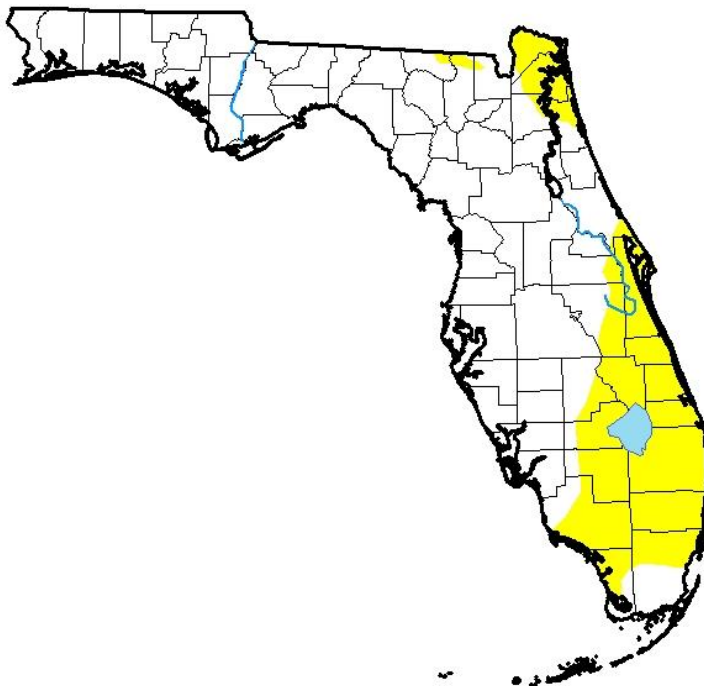
October 30, 2018

(Released Thursday, Nov. 1, 2018)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	72.63	27.37	0.00	0.00	0.00	0.00
Last Week <i>10-23-2018</i>	91.03	8.97	0.00	0.00	0.00	0.00
3 Months Ago <i>07-31-2018</i>	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year <i>01-02-2018</i>	72.59	27.41	22.39	0.00	0.00	0.00
Start of Water Year <i>09-25-2018</i>	100.00	0.00	0.00	0.00	0.00	0.00
One Year Ago <i>10-31-2017</i>	100.00	0.00	0.00	0.00	0.00	0.00



Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

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<http://droughtmonitor.unl.edu/>

Agriculture-Related Impacts.

At the end of October, topsoil-moisture levels were at surplus or adequate over two-thirds of the state, with the remaining third very short or short. Citrus harvest got underway this month; the early harvest has looked good, according to reports, and groves and trees also look to be in good condition. By the end of the month, the irrigation of crop vegetables was required because of dry conditions developing. Cattle conditions remained good as of the end of the month. Hurricane Michael decimated the cotton crop, especially those plants that were already defoliated prior to the storm, with 10-90% crop loss depending on the county. Peanuts on the panhandle suffered significant losses; late-season yields were halved.

At the end of the month, two-thirds of the state had topsoil that were adequate or excess in terms of moisture, with the balance of the state short or very short.

Appendix 1
Additional October Departures from Normal Data for Florida Locations

Station	Total rainfall (in.)	Departure from Normal (in.)	Average Temperature (°F)	Departure from Normal (°F)
Gainesville	0.61	-2.27	74.6	+3.7
Melbourne	1.27	-3.79	80.3	+4.3
Fort Lauderdale	1.65	-4.59	81.2	+2.3
Fort Myers	0.87	-2.01	79.5	+1.6

Appendix 2
Select daily maximum and minimum temperature records (°F) tied or broken during October.
(Compiled from NOAA, NWS)

Date	Station	Type	Value	Broken/Tied	Last
15	Tallahassee	Max	91	Broken	90 in 1990
17	Tallahassee	Max	90	Tied	90 in 1972
20	Tallahassee	Max	90	Tied	90 in 2005
10	Jacksonville	Min	79*	Broken	76 in 1919
15	Jacksonville	Max	91	Broken	90 in 1990
16	Jacksonville	Max	91	Broken	92 in 2017
17	Jacksonville	Max	94	Broken	91 in 1989
17	Jacksonville	Min	75	Tied	75 in 1879
20	Jacksonville	Max	90	Broken	89 in 2006
10	Orlando	Min	77	Broken	75 in 2017
15	Orlando	Min	74	Tied	74 in 2009
19	Orlando	Min	73	Tied	73 in 1950
4	Tampa	Max	92	Tied	92 in 2007
15	Tampa	Max	92	Tied	92 in 1990
16	Tampa	Max	93	Broken	92 in 1959
18	Tampa	Max	92	Broken	90 in 1989
19	Tampa	Max	89	Tied	89 in 2017
16	Miami	Min	80	Broken	79 in 1933
21	Miami	Max	91	Broken	89 in 2006
4	Key West	Min	82	Tied	82 in 2013
12	Key West	Min	81	Tied	81 in 1941
15	Key West	Min	82	Tied	82 in 2014
17	Key West	Max	89	Tied	89 in 2009
19	Key West	Min	82	Broken	80 in 2004
21	Key West	Max	89	Tied	89 in 2007
24	Key West	Max	89	Tied	89 in 1990
25	Key West	Min	80	Broken	79 in 2010

26	Key West	Min	81	Broken	80 in 2015
27	Key West	Min	80	Tied	80 in 2003

*This value breaks the all-time highest minimum temperature ever recorded at Jacksonville for the month of October (records back to 1871); the previous record was 78 degrees, last set on 4 October 1964.